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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,773	02/08/2005	Wagner C. F. Lourenco	GUS0102PUSA	5717
22045 7590 04/05/2007 BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			EXAMINER KUMAR, PREETI	
			ART UNIT	PAPER NUMBER
			1751	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/05/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/523,773	Applicant(s) LOURENCO, WAGNER C. F.	
	Examiner Preeti Kumar	Art Unit 1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/2/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Non-Final Rejection

1. Claims 1-27 are pending. Claim 1 is independent.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

3. Claim 9 is objected to because of the following informalities: Claim 9 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only and cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 22-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 22, the word "means" is preceded by the word(s) "A tanned hide that is obtained by " in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the

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element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Claim 23-27 recites the limitation "of chrome crossing" or "chrome fixing" or "denser fiber packing" in claim 22. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-27 are rejected under 35 U.S.C. 103(a) as obvious over Wurmli et al. (US 3,945,792).

Wurmli et al. teach a process for treating leather, in the acid pH-range, with an aqueous solution of an acrylic acids without impairing the handle, the buffing properties, the tightness of the grain, the fine grain or the dyeability of said leathers. See abstract. Specifically, Wurmly et al. teach suitable leather to be treated is, in particular, mineral-

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tanned leather, especially chrome-tanned leather such as chrome-tanned side leather, calf leather, kid leather or sheepskin leather, but also vegetable-tanned leather, particularly vegetable-tanned sheepskin and kid leather. See col.4,ln.40-45.

Wurmli et al. teach organic acids such as acetic or formic acid is usable in the process along with chromium tanning agent to have a pH value of 3.5 to 5.5. See col.4,ln.25-35. Wurmli et al. teach from 0.1 to 10% by weight of homo or copolymeric acrylic acids. See col.4,ln.4-6. Wurmli et al teach that the leather treated with the acid for 30 to 90 minutes. See col.4,ln.65-70.

Wurmli et al. teach 100 g of chrome-tanned sheepskin leather wet-buffed on the stone are rinsed and treated, in a drum, in 100 ml of water at room temperature and with a pH-value of the leather of below 4 throughout, with 2 g of a 50% glutaraldehyde solution. After 30 minutes, the pH-value throughout of the leather is increased to approximately 5 by the addition of sodium bicarbonate solution. After a further 30 minutes, 5 g of a mixture of water, methacrylic acid and acrylic acid are added to the bath. The obtained mixture is then heated within 30 minutes to 85.degree. and 1 g of potassium persulphate is added. A slightly exothermic reaction occurs and the temperature rises within 10 minutes to 91.degree.. The solution is subsequently further stirred for 2 hours at 85.degree.. After cooling of the reaction solution to 50.degree., it is adjusted with aqueous 50% sodium hydroxide solution to a pH-value of 6. The leather is treated in the liquor for one hour. 1 ml of 85% formic acid is subsequently added and the treatment is continued during 10 minutes with a pH-value of between 4 and 5. See col.6, example 4.

Wurmli et al. do not teach a process of tanning hide comprising an acidification step before submitting the hide to contact with chrome salts as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to modify the teachings of Wurmli et al. to arrive at a process of tanning leather hide comprising an acidification step before submitting the hide to contact with chrome salts because Wurmli et al. teach an acidification step resulting in a pH value of the leather of between 4 and 5 throughout the leather in general. Furthermore, merely reversing or changing the order of the steps in a process does not impart patentability when no unexpected result is obtained. Ex Parte Rubin (POBA) 128 USPQ 440 Cohn V. Comr. Pats. (DCDC 1966) 251 FSUPP 378, 148 USPQ 486 ; 29 USPQ 493 ; 38 USPQ 181.

9. Claims 1-27 are rejected under 35 U.S.C. 103(a) as obvious over Seigler (US 4,060,384) in view of Wurmli et al. (US 3,945,792).

Seigler et al. teach treating hide with an aqueous solution of formic acid for ½ hour prior to treatment with chromium oxide. See example 2A. In example 2B Seigler et al. teach treating hide with an aqueous solution of formic acid for 1½ hour prior to treatment with chromium oxide.

Seigler teaches the manufacture of leather by pretanning with a tanning mixture that results in the reaction between the hide collagen and the phenolic hydroxyl and carboxyl groups of the syntans, and the formation of bridges between polypeptides chains of the collagen also effected by the syntans, contribute to the collagen based

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tanning agent that increases in thermal stability and shrinkage temperature of the final chrome-tanned leather. More of the lyophilic groups in hide collagen are believed transformed into lyophobic groups by such a tanning sequence. See col.9,ln.17-27.

Seigler teach that it is well known that the penetration and fixation of the different type of syntans and/or glutaraldehyde with the collagen is influenced by the temperature, concentration, chemical proportioning, and pH value of the hides during the pre-tanning operation. Accordingly, the collagen based syntan pre-tanning can be effected at pH 7.5 to 8.5 after the bating process, but gives better and faster penetration at lower pH such as 5.0 to 5.3 during pickling, or at even lower pH after pickling. See col.9,ln.35-45. Seigler teach that acetic acid can be used in place of the formic acid, as can sulfuric acid or hydrochloric acid as acidifying agents during pretanning. See col.9,ln.60-65.

Seigler et al. illustrate treating leather with formic acid and water and commercial basic chromium sulfate containing 23.5% chromic oxide equivalent for 1 hour. See example 2A,col.5,ln.45-50.

Seigler does not teach the claimed acidification step wherein the external pH of the hide reaches between about 3.5 and 5 and the pH of an internal part of a cross section of the hide is between about 4.0 and 6.5 as recited by the instant claim 1.

Wurmli et al. are relied upon as set forth above. Specifically Wurmli et al. teach acid treatment with formic acid resulting in a pH-value of the leather of below 4 throughout the leather.

It would have been nonetheless obvious to one of ordinary skill in the art, to acidification step wherein the external pH of the hide reaches between about 3.5 and 5 and the pH of an internal part of a cross section of the hide is between about 4.0 and 6.5 as recited by the instant claim 1, because Seigler in view of Wurmlli et al. teach acidification of leather with formic acid resulting in pH of the hide is about 4.0 throughout. One of ordinary skill in the art would have been motivated to combine the teachings of Seigler with that of Wurmlli et al. since both references teach acidification of hide with formic acid with subsequent chrome salt treatment to raise the pH in general.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 571-272-1320. The examiner can normally be reached on M-F 9:00am - 5:30pm.

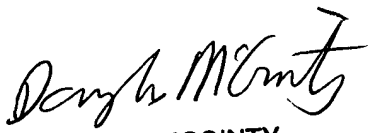
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Mc Ginty can be reached on 571-272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Preeti Kumar P.K.
Examiner
Art Unit 1751

PK


DOUGLAS MCGINTY
SUPERVISORY PATENT EXAMINER

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